Task Force Network Briefing to CSA

13 November 2003

Version 1.2

Purpose

To provide CSA Task Force Network findings

Agenda

- **TF Network Essential Tasks**
- **Joint Operational Environment**
- **Current Network Dilemma**
  - **Application Layer**
  - **Transport Layer**
- **OIF & OEF Experiences/LL**
- **Strategies**
- **Army/Joint Business Practices**
- **Bottom Line**

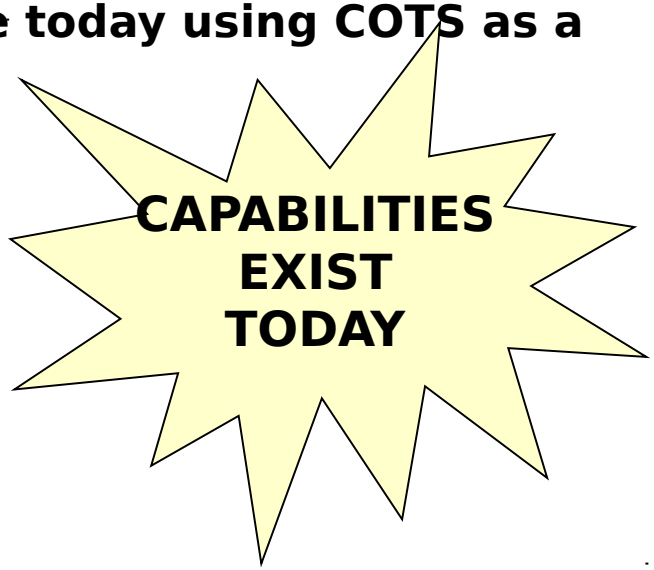
Essential Tasks - Findings

- **Collaborate with Joint/OSD Community on Network Development**
  - **Joint networking is not a pick-up game, but we play that way today**
  - **Combatant Commanders determine Joint Networks today, but JFCOM is stepping up**
  - **Army current Network not even close to "Good Enough"**
    - ✓ **Capacity, Defense, and Management**
  - **Army needs a Network strategy nested in Joint requirements**

- **Accelerate Battle Command Capability - APPLICATIONS (Near Term)**
  - **Field Battle Command "Good Enough" solution**
  - **Standardize applications in today' s C2 applications "menu" - appetite suppressant**
  - **Adopt NETOPS Strategy for Integrated Networks and Battle Command applications (Networthiness) - the right information to the right person at the right time**
  - **Best short-term solution to integration is Central Technical Support Facility (CTSF) (PEO-C3T)**

Essential Tasks - Findings

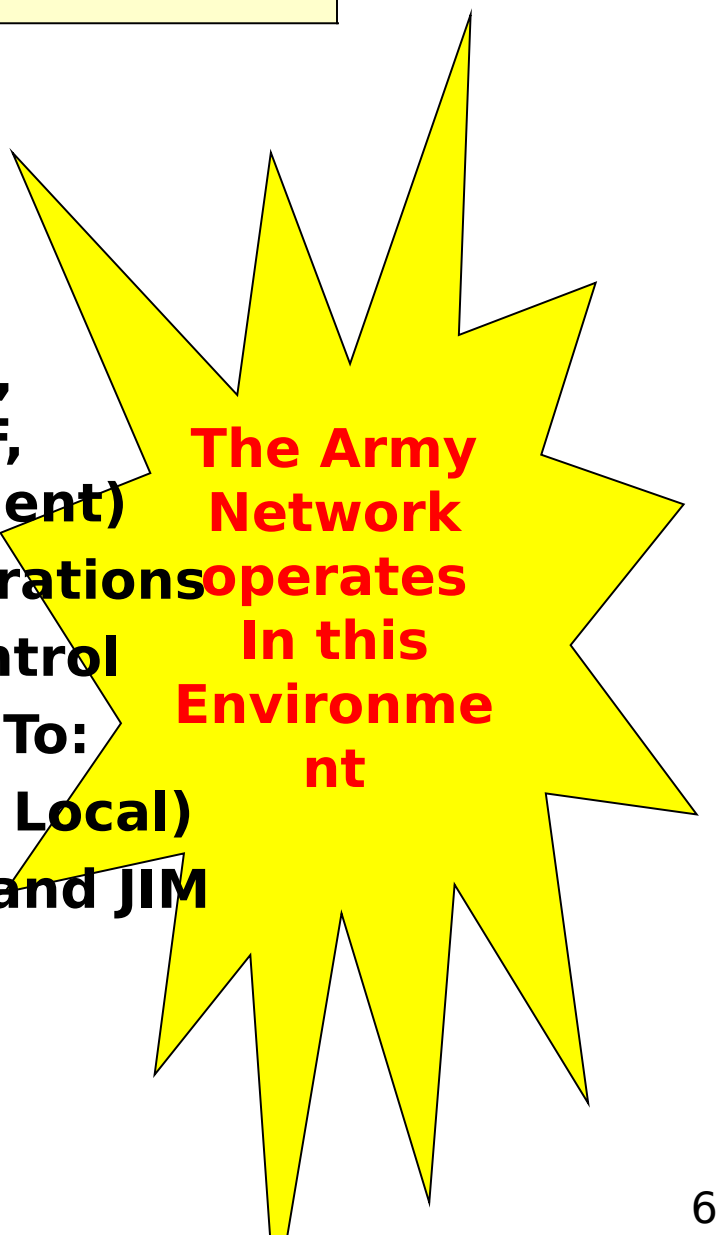
- **Accelerate Future Network Capabilities – TRANSPORT (Near Term)**
  - **Bring Future capabilities to the force today using COTS as a bridge:**
    - ✓ **Battle Command and CSS Systems**
    - ✓ **Home Station**
    - ✓ **Enroute**
    - ✓ **On-The-Move**
    - ✓ **At-The-Quick-Halt**
  - **Down to Battalion level**
  - **Blue Force Tracking to Soldier level**



- **Clarify Network Oversight**
  - **Need integrated construct for requirements, funding, R&D, fielding, control from home station to forward deployed Soldier**
  - **Network spans strategic-operational-tactical (boundaries blurring)**
  - **Solution:**
    - ✓ **1,000-lb Gorilla for Requirements - TRADOC CDR**
    - ✓ **Single lead for Network Governance - Army CIO (Clinger-Cohen Act 1996)**
    - ✓ **One Network Operator and Defender – NETCOM**

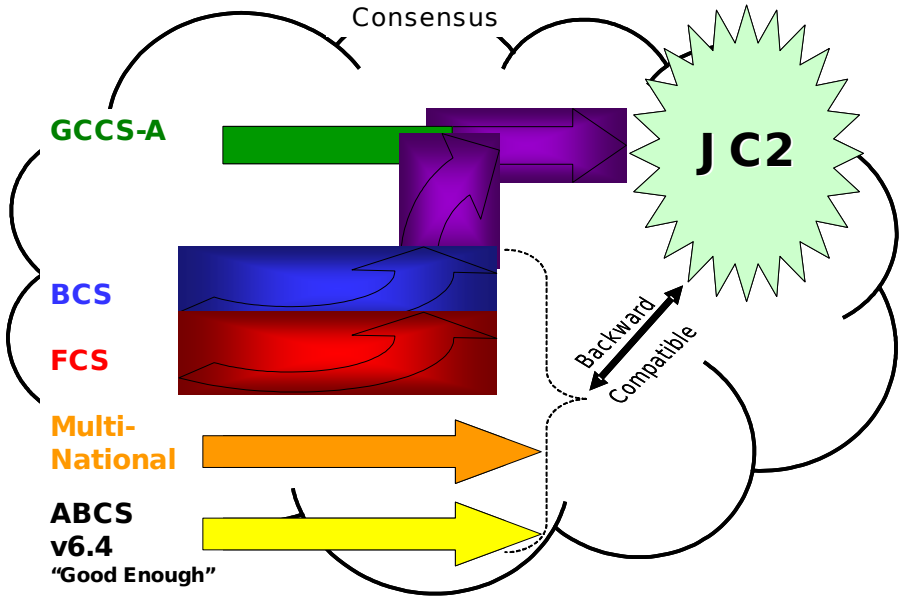
Joint Operational Environment

- **Joint, Int[illegible] Always**
- **Asymmetric threat**
- **Rapid simultaneous deployments**
- **Fight On Arrival**
- **Rapid, non-contiguous / distributed , integrated, decisive operations (SOF, Deployment, Employment, Sustainment)**
- **Sustained post combat stability operations**
- **Transition to Coalition / National Control**
- **Continuous Joint C4ISR connectivity To:**
  - **Homeland (HSOC, National, Civil, Local)**
  - **Forward deployed headquarters and JIM Forces**
  - **Enroute (Airborne and Maritime)**
  - **Numerous points of entry**
  - **On The Move**



Battle Command – Big Ideas

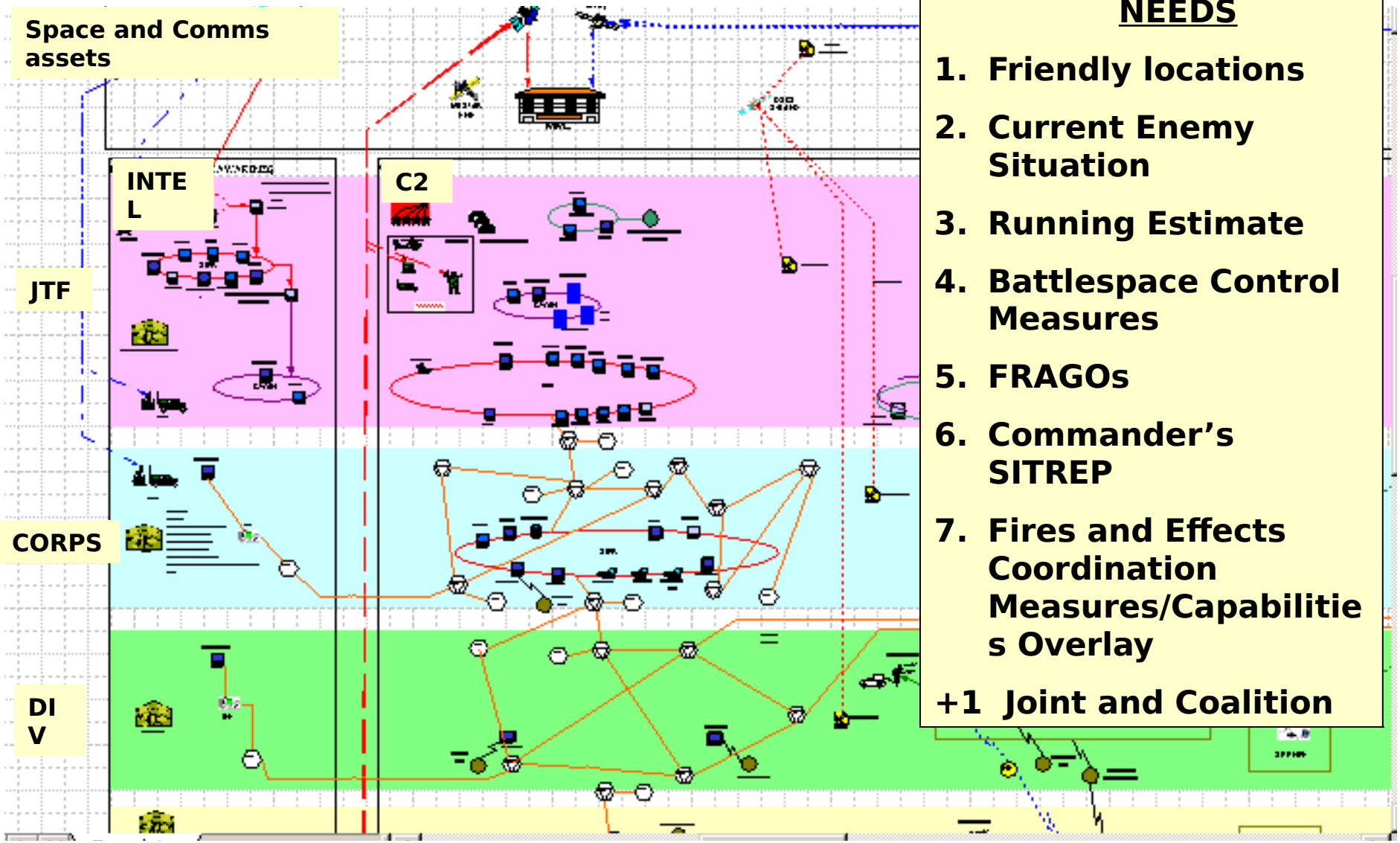
Future
Battle Command is the art and Science of applying leadership and decision making to achieve mission success



- Commander Driven - Purpose Oriented - Knowledge Based - Mission Orders
- Echelonment of Command is not the same as Echelonment of Unit Formation
- Battle Command Resourced for Sustained Operations
- Battle Command - - Anytime, Anywhere
- Teaming of Commanders and Leaders - On Demand Collaboration

- Fully integrated: Space to Mud, Factory to Foxhole
- One Battle Command System
- Unprecedented Information Network Dependability
- Modular, Scaleable, Tailorable Battle Command
- Dramatically Smaller Deployed Footprint

OPERATIONAL NEEDS



TOP OPERATIONAL NEEDS

1. **Friendly locations**
2. **Current Enemy Situation**
3. **Running Estimate**
4. **Battlespace Control Measures**
5. **FRAGOs**
6. **Commander's SITREP**
7. **Fires and Effects Coordination Measures/Capabilities Overlay**

+1 Joint and Coalition

Army Participation In The Joint Network Environment

- **Combatant Commanders define Joint "Bring to War" requirements (Regional focus)**
  - **DISA Services: NIPRNET, SIPRNET, VTC, DSN, Red Phone**
  - **Joint Assets: Satellites and UAV, Airborne sensors, Strategic Intelligence Sensors, JWICS**
  - **Sensor to Shooter: Link 16, TADL, etc.**
  - **Battle Command: C2PC, ADOCS, locally developed programs**
- **Army formations equip themselves to be relevant in the Joint Environment**
  - **Few Army Programs Of Record are Joint Network Capable – existing capabilities not close to "Good Enough"**
  - **Need consistent Army POM Support for JWICS, NIPRNET, SIPRNET, VTC, Red Phone across the force**
  - **NETOPS Strategy – "Factory to Fox Hole – Space to Mud" – partially there**

No Joint Network Program = No Joint Network Standardization
Result: Pick-up Game

What the Commander Expects Always and Everywhere

BC Applications: Operational Needs

Joint Services Transport Network Applications Plug Into

Operational Needs

- Friendly locations
- Current Enemy Situation
- Running Estimate
- Battlespace Control Measures
- FRAGOs
- Commander's SITREP
- Fires and Effects Coordination Measures/Capabilities Overlay
- Joint and Coalition Interdependence

Unclassified STAMIS / Office Automation / Internet Access

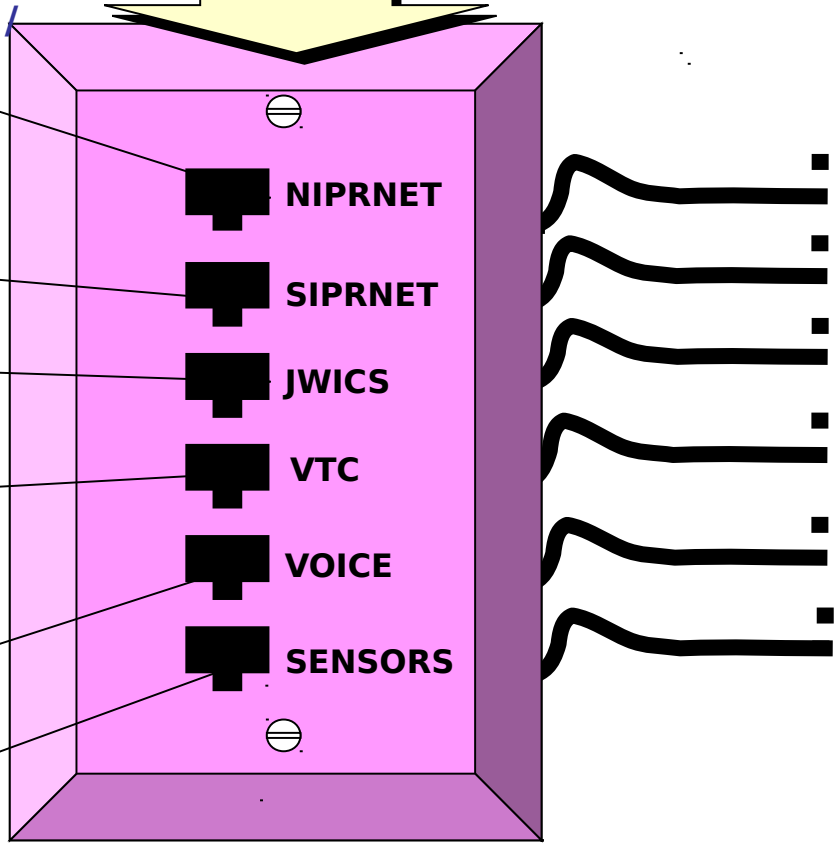
Secret High GCCS & Battle Command

TS/SCI Intelligence

Video Services & Collaboration

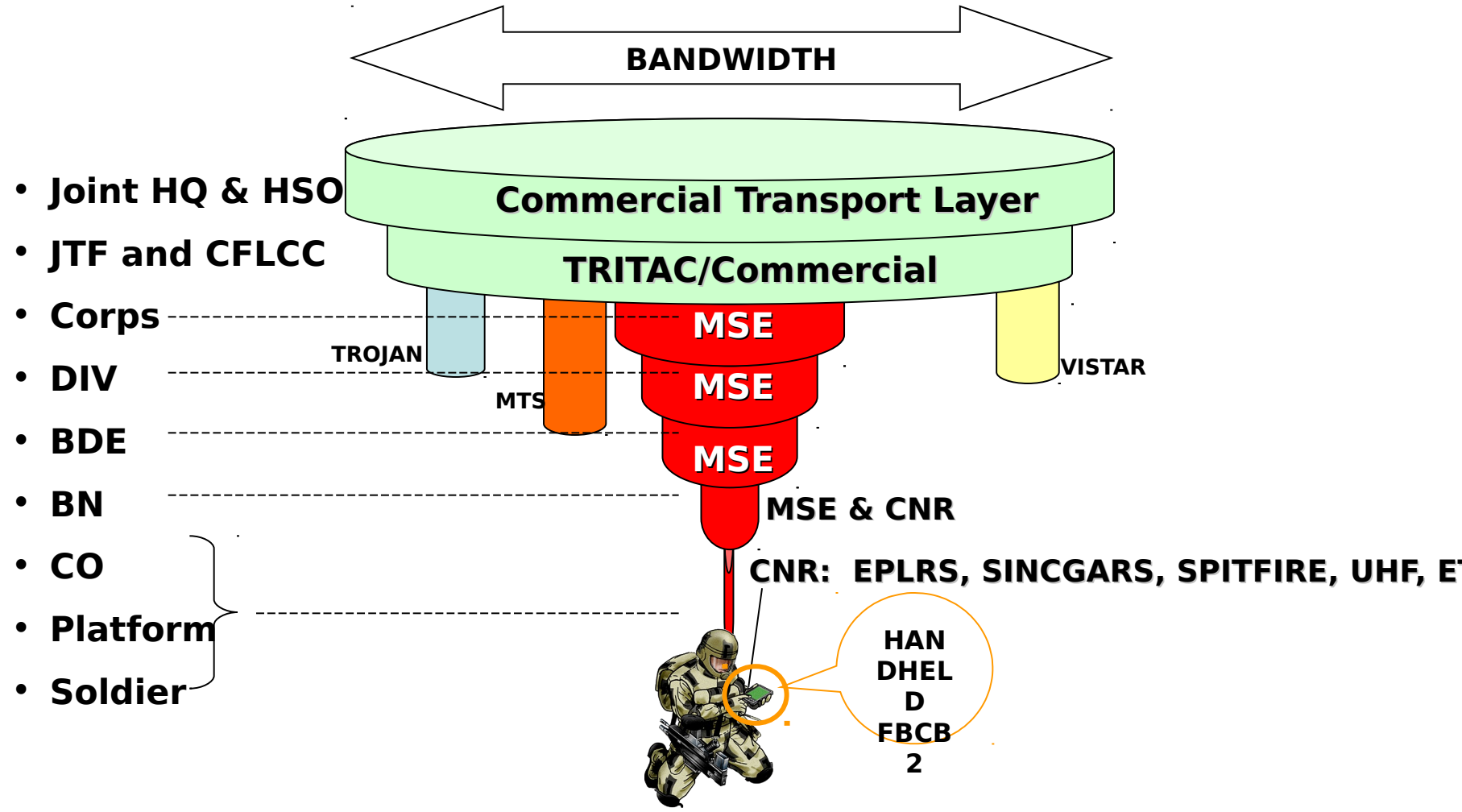
- Unclassified (DSN)
- Secret (STE & STU III)
- TS/SCI (RED PHONE)

SENSOR-SHOOTER



Joint Services Wall Plate

Current Networks Not Even Close To "Good Enough"

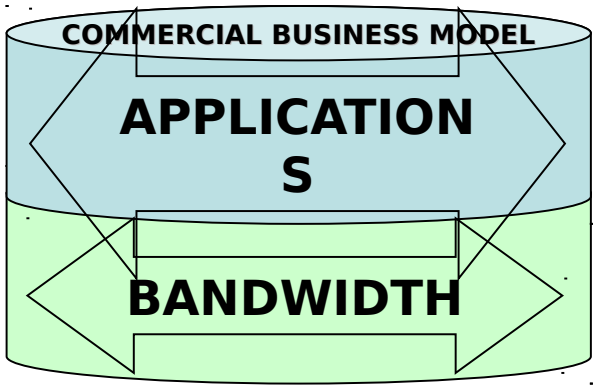


Bandwidth narrows where we need it the most

Commercial vs Military Transport Dichotomy

Commercial Environment: Bandwidth is not a

MOST ARMY APPS BUILT ON COMMERCIAL MODEL



PROFIT BASED COMMERCIAL BUSINESS ASSUMPTIONS:

UNLIMITED TRANSPORT BANDWIDTH
+
UNLIMITED COMPUTER MEMORY
=
UNSOPHISTICATED SOFTWARE

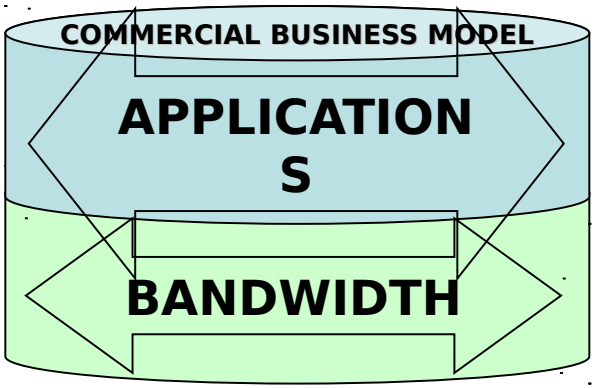
Joint HQs Operate in This Environment

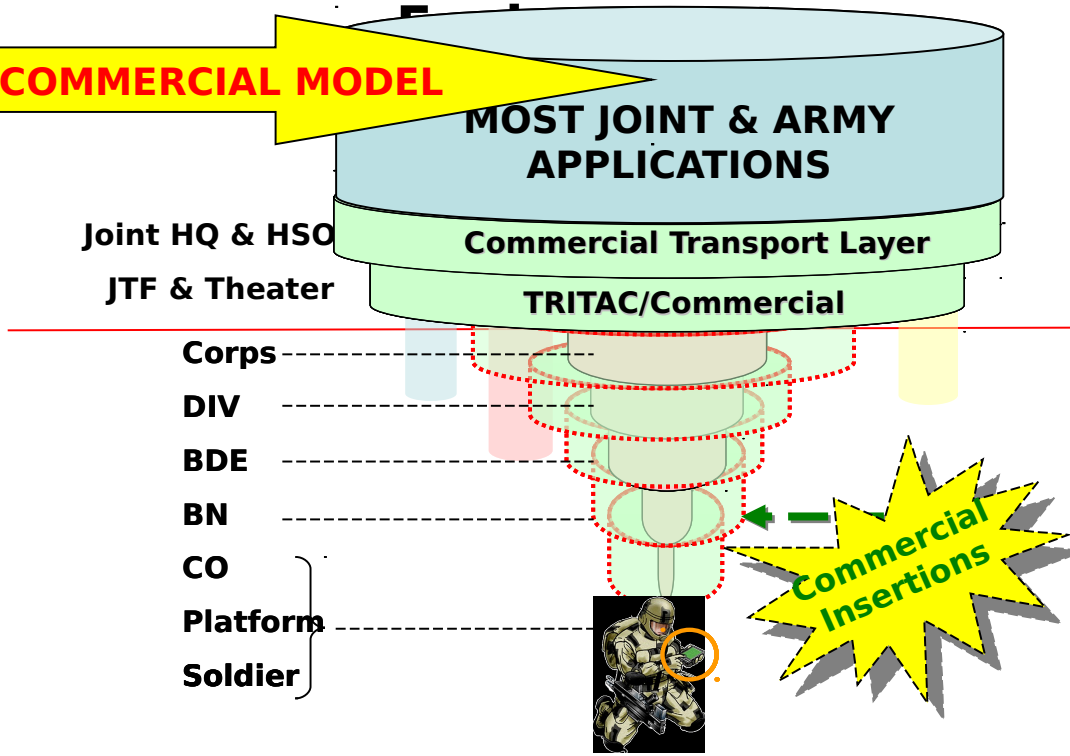
Commercial vs Military Transport Dichotomy

Commercial Environment: Bandwidth is not a

Military Operational

MOST ARMY APPS BUILT ON COMMERCIAL MODEL





PROFIT BASED COMMERCIAL BUSINESS ASSUMPTIONS:

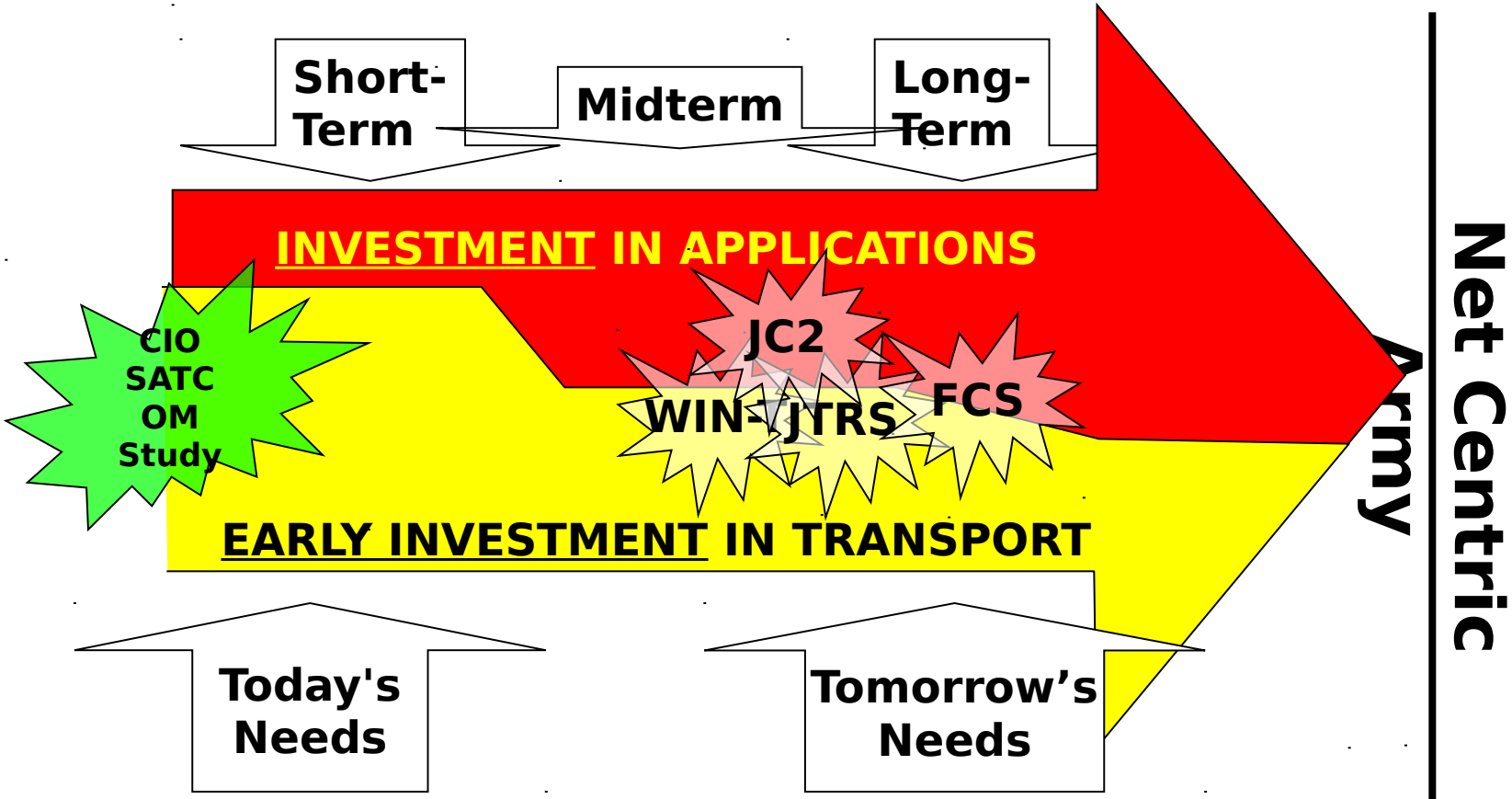
UNLIMITED TRANSPORT BANDWIDTH
+
UNLIMITED COMPUTER MEMORY
=
UNSOPHISTICATED SOFTWARE

Commercial Applications Operate Inefficiently without bandwidth

Joint HQs Operate in This Environment

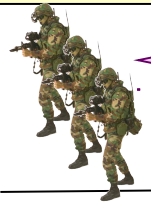
Tactical Forces Operate in This Environment

Army Network Investment Strategy



Invest in Transport in the Near Term

OIF & OEF Experience: Required Operational Architecture



SENSOR TO SHOOTER

C2 ON THE MOVE

MAJOR HQ

SATCOM

Deployed NETCOM

CPS THAT SPRINT TO QUICK HALT

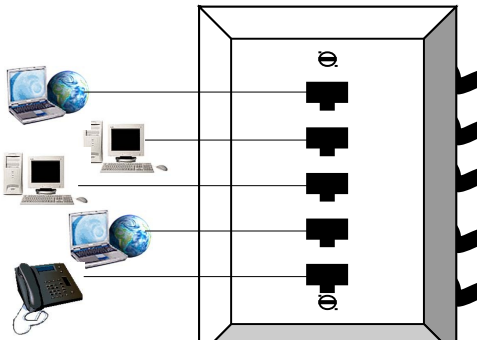
Deployed Posts/ Camps/ Stations

ARMY DEPLOYED

ENROUTE MISSION PLANNING

JTF HQ

NAVFOR
AFFOR
MARFOR
JSOTF



INSTALLATION

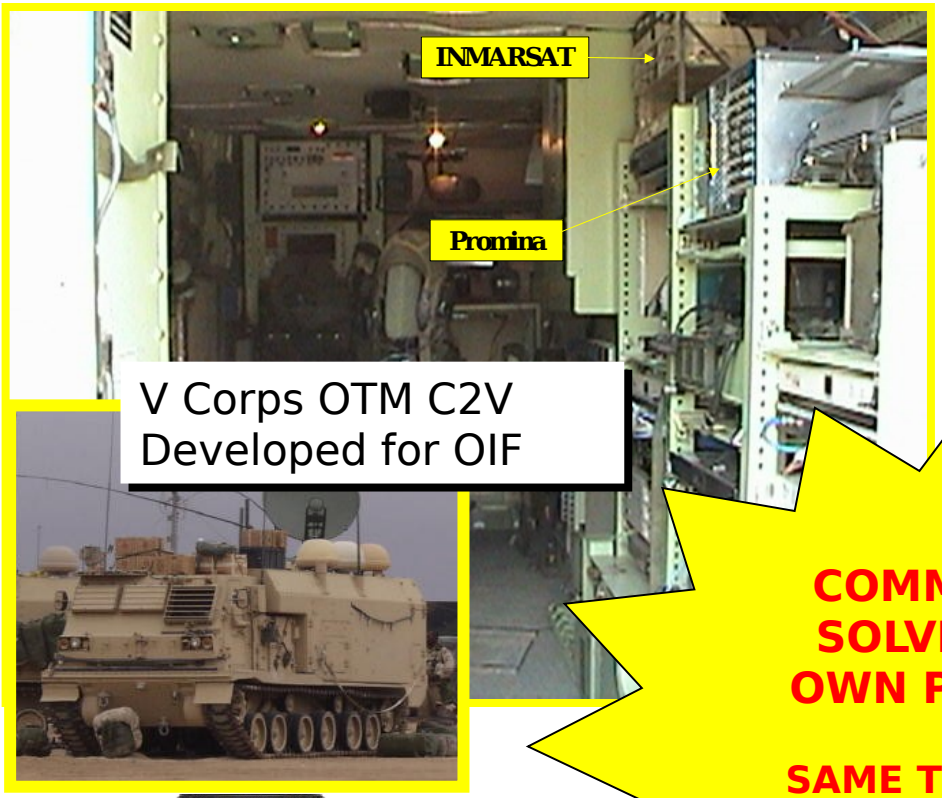
NETCOM

DISA / DIA

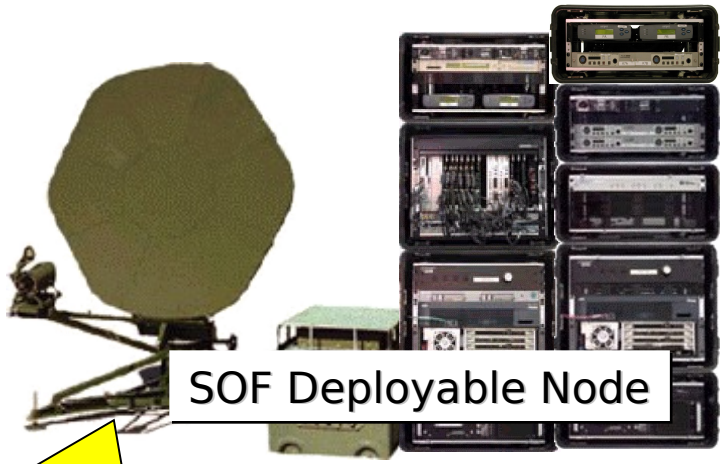
Regional Combatant Commander

HSOC

INSTALLATION



V Corps OTM C2V
Developed for OIF



SOF Deployable Node

COMMANDERS SOLVED THEIR OWN PROBLEMS

SAME TECHNOLOGY PACKAGED FOR MISSION AND PURPOSE

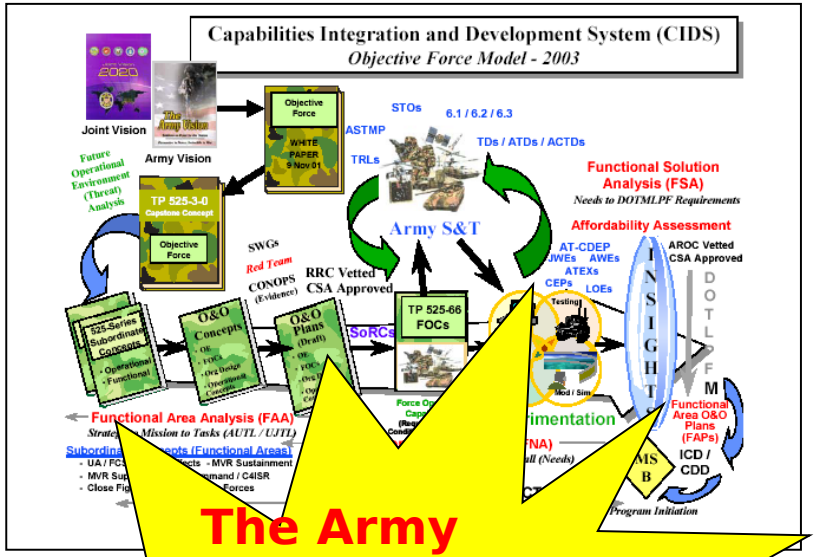
SOF INMARSAT Manportable Comms Terminal

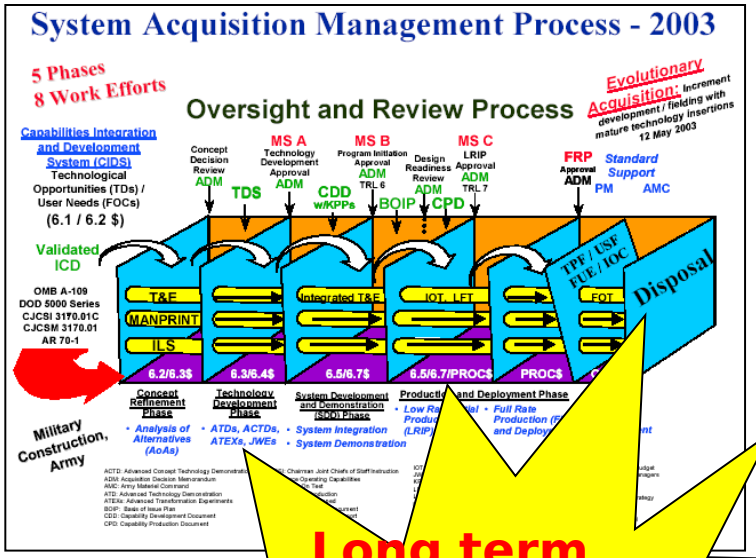
THEATER HEADQUARTERS
Transit Cased Standard Data Package

PACOM ARMY JTF PACKAGE

COTS-Focused solutions – Standard Army Processes don't support

WILL DOD BUSINESS PROCESS BURDEN RAPID IT INSERTION?





The Army must be product versus process focused for the near term

Long term business processes must allow continuous tech insertion

Essential Tasks: Bottom Line

- **Collaborate with Joint/OSD Community on Network Development**
  - **Assume a leading role in defining Joint Network baseline requirements (TRADOC Futures Center)**
    - ✓ **JBMC2 linkage**
    - ✓ **Army requirements as an Annex of JC2**
    - ✓ **Joint Network Standardization**
    - ✓ **Joint Operational Architecture**

- **Accelerate Battle Command Capability - APPLICATIONS (Near Term)**
  - **Battle Command "Good Enough" and move to next level of Jointness with JC2 (HQDA)**
    - ✓ **Future applications and transport fully nested in Joint Architecture**

- **Accelerate Future Network Capabilities – TRANSPORT (Near Term)**
  - **Invest now with significant resources to build a more capable Joint network from the Home Station to the forward deployed Soldier (HQDA)**

- **Clarify Network Oversight**
  - **Adopt a One Network Enterprise Strategy (HQDA)**
    - ✓ **Defined by TRADOC, Governed by CIO, Managed by NETCOM**
    - ✓ **HSOC to forward deployed Soldier**